

2000/08

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**BALLARAT
AMATEUR
RADIO
GROUP INC.**

NEWSLETTER

P.O. BOX 1261
Mail Centre
Ballarat
VIC. 3354

**AUGUST 2000
VOLUME 23 No. 8**

Official Newsletter of the Ballarat Amateur Radio Group Inc. No. 6953T



VK3BML



BALLARAT AMATEUR RADIO GROUP INC.
Inc. No: 6953T
OF
OFFICE BEARERS - 1999 / 2000



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MEMBERS' REP.	DICK CURNOW	VK3LDC	MARY		5330 1927
MEMBERS' REP.	MARY CURNOW	VK3FMC	DICK		5330 1927
MEMBERS' REP	GEOFF SMITH	VK3ADB			5333 2112

OFFICERS

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TECH. OFFICER	BOB TERRILL	VK3BNC	BETTY		5339 5317
TECH. OFFICER (DIG.)	DOUG. KAY	VK3KAY	DEBBIE		5339 2778
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AWARDS MANAGER	REG CARTER	VK3CAZ	SHELAGH		5341 7585
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WICEN STATE CO-ORD.	GORDON CORNELL	VK3FGC	HELEN	5339 1135	5339 2427
H'MVENT. CO-ORD.	TOM GEORGE	VK3DMK	ELAINE		5339 9737
SCRAMBLE CO-ORD.	REG. CARTER	VK3CAZ	SHELAGH		5341 7585
AMENITIES COMMITTEE	BETTY - SHIRLEY - SHELAGH - MARY.				

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LIFE MEMBERS OF BARG.

VK3SE	STAN WIDGERY
VK3CFB	JIM WRIGHT
VK3AXH	IAN MC.DONALD
VK3WN	KEVIN HUGHES
exVK3AQM	PHIL SNEDDON

REPEATERS

VK3RBA (Voice)	146.750 MHz. - Mt.Buninyong.
VK 3RPC (Packet)	144.750 MHz. - Mt. Warrenheip.
VK3RBU (Voice)	438.475 MHz. - Mt.Hollowback.
VK3RMB (Beacon)	432.535 MHz. - Mt.Buninyong.
VK3RBV (ATV)	426.250 MHz. - Ballarat

ACTIVITIES CLUB NET: Thursday nights at 8 pm. (8.30 pm during Daylight Saving). Freq: 3.610 MHz +/- QRM.

2 METRE SCRAMBLE: Sunday Nights at 7.50 pm. Freq: 146.425 to 146.600 MHz. Inc,

Call back held on VK3RBA 146.750 MHz.

MEETINGS: General Meeting : Last Friday of each month (except December) at 8.00 pm.

Venue: Club Rooms - Ballarat Airport - Unit 31 - Off Learmonth Road - Ballarat.

CONSTRUCTION NIGHTS: Saturday Afternoons at clubrooms. - 1 pm.,

HAMVENTION : 30th & 31st. October 2000.

INTERNET ADDRESS: <http://www1.tpgi.com.au/users/ddi/barg/barg.htm>

PLEASE ADDRESS ALL CORRESPONDENCE to: The Secretary - BARG Inc. Box 1261 Mail Centre Ballarat 3354

NEWSLETTER ARTICLES to Marion Diprose (VK3FJW) 7 Winifred Street Mitchell Park 3355 - email to :- diprose@giant.net.au



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The Minutes

MINUTES OF B.A.R.G GENERAL MEETING

Minutes of the BARG general meeting, July 28th 2000

The meeting was opened at 8PM by the president Doug VK3VBA, welcoming all in attendance.

Minutes: The minutes of the previous meeting were confirmed as presented in the newsletter. With the e-mail address of VK3WWW corrected to vk3www@alphalink.com.au Moved VK3FGC, Sec VK3DCS

Correspondence:

In: Various club newsletters, Junk mail, Rent receipt from the city of Ballarat
Club account statement's from the bank, Letter from the city about the Ballarat
Airport, Rotary club assistance fund advance letter, July Ed. of AR Mag., Receipt
From the spastic Soc. for the money tin.

Out: Application form for the clubs domain name/website sent to mpgr.

Treasurer's Report: Account details were tabled and read by Gordon VK3FGC, Moved, VK3FGC,
Sec. VK3CAZ

Reports:

Facilities/Amenities: The phantom toilet paper snatcher has been active... Please make a note on the fridge when it's getting low.

Education: Going along well.

Hamvention: Going strong. A food permit of \$10 will be going onto the relevant party's shortly. Tom will be seeing the tressel guy shortly, and the show grounds people (ESP. the GST). Tom still needs an assistant or someone to take over the Hamvention

Wicen: Wicen members need to remember that the fourth Wednesday night is a wicen practice night. Gordon has been elected state rep. A statewide test of wicen is going to be run in November.

Scramble: The scramble winner's for 1999/2000 was announced by Reg at the last meeting. First place went to Charlie VK3DCS, second Stephen VK3HEG, and MARY VK3FMC. A new section is now in affect this year. SWL's can get in on the act, Listen in on the repeater (VK3RBA) at approx. 7:45 for Reg as he gives out some info. about the scramble.

Net: Eight turned up at the last net before the club meeting, with VK3YE doing some antenna tests.

Technical: A small working bee was held to on the 29th to fix the beam (had a small miss-hap and got bent out of shape.)

General: Doug VK3VBA attended the meeting at the aero club about the situation with Stuart Gull and the airport development. Suffice to say that the club has no worries. The good news is that the club will be able to take out a longer lease on the rooms. The club putting on a small display with the film "Frequency" in town is now off, due to the marketing lady at the Regent not willing to say yay or nay. We now have a suggestion box at the rooms, if you have any please put them into it. We also now have a visitor book near the door, please fill it in if you have to visit the rooms for any reason. This is for security reasons, and so we can track when the last person was at the rooms. There are a few problems with the packet bbs at the moment, due to a faulty radio. A motion to accept the donation of a FM828 from Doug Kay and provide some crystals to fix the problems, Moved VK3DMK, sec VK3BVI. Geoff Smith thanked the club members for letting him provide them with supper each night and noted that \$10 might have to go to \$15. Thanks must go to Elaine, Tom's wife for offering to take over while Geoff is away.

The holders of the "Intermediate" licence class now have access to all HF bands.

The equipment loan book ***NEEDS*** to be filled out (you can find it in the tables at the front of the clubrooms), there are pages for each device. Equipment is on loan for one month only, and needs to be returned to the clubrooms at the end of the period.

Meeting closed at 8:50pm

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Coming Events



Friday 28th August	Annual General Meeting
Friday 8th September	Gourmet Meal at Royal Oak
Saturday Afternoons	Construction Days—Clubrooms at 1pm
Sunday Nights	2M Scramble—7.50pm 146.425 to 146.600 MHz
Thursday Nights	Club Net 3.610 MHz—8.00pm
4th Wednesday	WICEN Training Nights
Friday 29th September	General Meeting

Annual General Meeting Friday 25th August

Members are advised that the Annual General Meeting of the Ballarat Amateur Radio Group Inc (B.A.R.G.) will be held on Friday 25th August 2000. The venue will be the Club Rooms (Unit 31) at the Ballarat Airport. The meeting will commence at 8.00pm.

At the Annual General Meeting the following business will be conducted:

To confirm the minutes of the 1999 annual General Meeting.

To adopt the Annual Report and the Financial Statement of the Club over the preceding year.

To appoint Auditors and the Hon. Legal Officer for the forthcoming year.

To elect officers of the association and the ordinary members of the Committee for the ensuing year, all positions having become vacant at this time

From the President

Well another year is almost completed for B.A.R.G., a reshuffle in the club is about to take place with some old Committee Members to go and new ones to come in.

To reflect on the year just gone, I'd like to highlight a few events that took place.

October An enjoyable day was held travelling to Knox City by bus on a shopping trip, it proved to be a profitable event for the club. Tom. DMK busy organizing the Hamvention which proved to be another financial success.

November Rotary Raffle with \$1200 worth of tickets sold, bringing in \$1080 for the club, thanks to Mary FMC for the work involved. WICEN informed us that through the Justice Department \$6200 be allocated for upgrading selected Repeater sites, including R.B.A. Offer from Michael Ronaldson M.L.A. to print our newsletters at no charge.

December Removal of 2M Repeater from Smeaton Hill. Some members of B.A.R.G. spent Dec 31st at the Ballarat Police Station offering communications backup re any Y2K problems. (thankfully we were not needed).

February Our Home Page is now at www.qsl.net/vk3bmy. Thanks to Doug VK3KAY Work still continuing of installation of 2M Repeater on Ben Nevis.

March Relocation of VBS to clubrooms. Two members represented BARG at WICEN event at the Murray River Ski 80. Radio room at Club house is now being used for Club.

April Tower donated (thanks to Jeff VK3PAP) for installation of OMNI for B.B.S. now up and running. Resignation of Norm LBA.

May VK3RBS now transferred and up and running on Mt Ben Nevis proving to have a very good coverage. George Fowler Auction another successful day thanks to all concerned.

June REG CAZ busy adding scores for scramble. Congratulations to HEG, FMC, OCS

July ARDF informed us of an event on the Saturday evening of our Hamvention. Something to look forward to. Attendance at meetings are holding their own with a total of 264 for the 12 months, 6 more than last year (or this years average is 22 per meeting against 21—25 last year. It would be nice to see this average increase. For all members who have contributed in the last 12 months, I would like to express many thanks and keep the good work up, our club is only as strong as our members wish to make it. So to one and all, God Bless, and all the best for the incoming Committee Members.

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For Your Information

NEXT GOURMET MEAL

The Great Western Hotel was the venue for last months meal where some 12 folk dined out and spent a very enjoyable evening together. Our next culinary experience will be held at the Royal Oak Hotel at 6.30pm, 8th September. If you are interested in coming along, please contact Shirley 5331 7425, Shelagh 5341 7585 or Mary 5330 1927 by 1st September so bookings can be made.

W.I.A. NEWS

A new threat to the 70 cm band. Despite earlier assurances by the Australian Communications Authority (ACA) that the allocation of parts of the 70cm band for the Olympic Radio Network was a temporary measure, the band is under serious threat.

The ACA has now told the WIA that it intends to allocate the 420-430MHz band to the Western Australian Police Service in the greater Perth area, which is expected to begin using that spectrum late this year.

WIA Federal President, Peter Naish VK2BPN said, "Clearly the WIA sees any restriction to the access which the Amateur Service currently enjoys in the 70 cm band as a very serious matter. "There is concern that the WA Police Network may be only the first of a number of similar systems in other parts of Australia."

Mr Naish said the 420-430MHz part of the band already contains a number of Amateur Radio services in the Perth area including a television repeater and a number of fixed links. At present the 70 cm band is allocated on a Primary basis to the Department of Defence with the Amateur Radio Service as a Secondary user.

The WIA Federal President said, "It is likely that the Police network will be afforded Primary status and that there would a consequential impact on our use of this portion of the band." Mr Naish said that the ACA has invited the WIA to meet with them at an early date to consider the impact of this new network on the Amateur Service, so the WIA can put forward any adjustments that may be required to the Amateur Radio use of these frequencies. He said, "The WIA will press the ACA for an outcome which provides an acceptable arrangement and which ensures our continued and long term usage of the 70 cm band nationally. "The WIA/ACA Liaison Committee is preparing the WIA's position in readiness for the meetings with ACA in Canberra."

LAWN MOWING ROSTER

Gordon VK3 FGC and Geoffrey VK3 ADB
Thanks for your participation guys.

Coins in the old system were:

- Half penny, penny, threepence, sixpence, shilling, florin and crown.
- Notes were: 10 shillings, 1 pound, 5 pounds, 20 pounds and 100 pounds
- Twelve pennies made a shilling
- Twenty shillings made a pound
- Ten florins made a pound
- Four crowns made a pound
- A guinea was one pound and one shilling
- Pennies were called 'coppers' shillings were 'bob' and a pound was a 'quid'

JUST A THOUGHT

Life's briefest moment is the time between reading the sign on the freeway and realising you just missed your exit.

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TECH TALK



SOME FURTHER THOUGHTS ON THE MODIFICATION OF COMPUTER POWER SUPPLIES.

WARNING !!!!! REMEMBER FOR EVERYBODY'S SAKE THAT ON THESE POWER SUPPLIES AT LEAST HALF OF THE PRINTED CIRCUIT BOARD IS FED WITH RAW MAINS AND IS A POTENTIAL KILLER IF YOU HAVEN'T GOT IT FED FROM A ISOLATION TRANSFORMER.

Looking at a couple of computer power supplies that I have, it seems that there may be an easier way of modifying the things to deliver 13.6 volts than previously described.

If the thing uses a 494 I.C. then almost invariably there is a fixed resistor of about 5 - 10 K ohms connected between pin 1 of the 494 and the zero volt line. This is part of the voltage divider sampling the 5 volt output line for control purposes.

Well, try this way of adjusting the 5 volts in preliminary trials before modification. Remove this resistor and replace it with the following combination. A fixed resistor whose value is the next standard value LOWER than the removed resistor, in series with a linear variable resistor of say 1-2 Kilohms. Now set the position of the variable resistor to about half value and apply power to the unit. You should get about the same output voltage and it should be variable, increasing in value as you DECREASE the value of the 'pot'. If by bad luck you have set a value so high that the 'over volt' operates then INCREASE the pot resistance setting value and try again.

If this is successful and the unit uses a 339 as part of the safety circuit and it follows the pattern as described in the printed literature then almost certainly the appropriate section of the 339 dealing with 'overvolt' will also have a resistor to zero volts which again forms part of the output sampling system and what you will now be able to do, is 'waggle' the output volts a little and look for the input pin on the 339 whose voltage varies in sympathy with that varying voltage.

That pin is the one which is sensing 'overvolt' and its resistor going down to zero volts is the one to modify as was done in the voltage control side of things. You can check that it is the right section of the 339 by looking at its other input pin and noting the standing voltage on it. When you 'trip' the overvolt then you should see the voltage on the control pin rise to the same value and trip the comparator over. A check at the relevant output pin should show a dramatic change in output voltage as the 'overvolt' operates.

So far so good and if the first part of the unit mod was successful then try doing the same to the fixed resistor in the safety circuit resistive divider and see if you can vary the 'trip voltage'.

If so, you are 'home and hosed' and all that needs doing is to rewind the transformer (more easily said than done 1

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TALK



must admit) and the replacement of it into the unit to feed both the erstwhile 5 volt rectifiers and the 12 volt system having replaced the 10 volt 'caps in the 5 volt line with higher rated ones and rewinding the filter toroid if desired.

HOWEVER, if this method of modifying the thing works for you, don't forget you MUST disable the feeds to the -12 and -5 volt supplies somewhere so that you don't overvolt them and get a cloud of smoke; you can either pull the rectifiers or just cut the tracks.

The final values of 'trimming resistors' for voltage and over volt control can be made up of a combination of fixed resistor and trimpot such that their total will be about half the original value resistor and for ease of adjustment, if possible, the combination should be made up of two approximately equal values. If the overvolt section is being awkward then you will have to initially disable it to get the output correct and then devise a suitable trip circuit for 'overvolt' protection.

If you were lucky and both circuits responded then after modification to the transformer and the rest of the circuit as mentioned above, the pots can adjusted gradually to give the desired output, bringing the trip voltage and the output voltage up together in small steps until you are satisfied that they are both set correctly. This way you don't have to go to the trouble of tracing the PCB through the winding paths to get an idea of the circuit involved.

WARNING. I have found at least one power supply where it is the 12 volt line that is regulated NOT the 5 volt line. This is shown quite easily by monitoring the voltage on pin 1 of the 494. If it shows a value of 5 volts then you have got one of the 'awkward' ones and will have to trace out the circuitry and devise your own system of modification.

73 de VK3CAZ

IDENTIFYING COAX LEADS AS THEY ENTER THE 'SHACK'.

If, like me you have a job remembering which of the many coax cables wandering round the shack is connected to which antenna then try this freebie.

Keep, or steal, the little white tags which are used to close the sliced bread bags when you next get a sandwich.

They are just the right size to fit round RG 58 or 59 coaxial cable and a freezer bag pen can mark them pretty permanently so you can identify which is which.

TECH TALK



HOME TELEVISION CAMERAS AS THEY MIGHT HAVE BEEN ?.

Gazing at the latest video cameras becoming so common around the place and wondering at their compactness, it is interesting to consider how they would/could have miniaturised the Baird Company's mechanical system had it been successful in being adopted over the Marconi-EMI system, which is the basis of modern television even though it was then only 405 line 25 frames interlaced.

After all, look at the 'Studio' camera used by Baird in competitive trials against the all-electronic Marconi-EMI system during test BBC broadcasts, using the two systems alternately, from November 2nd 1936 until the Baird system was abandoned on February 8th 1937 (barely three months).

To quote "The Spotlight Studio system used a disc scanner running at 6,000 rpm and having four spirals, each of 60 holes. Each spiral was brought into use by means of a further shutter disc revolving at 15,000 rpm. The large disc, which was enclosed in a vacuum, was rotated by means of a 100 hertz 3-phase motor of 1/2 horsepower, whilst the small disc was driven by a 1/20 h.p. 50 Hz 3-phase motor.

The light source, since it was a 'flying spot' system, was a large arc consuming 120 amperes and owing to the intense heat generated by an arc of this power the scanning gate was water-cooled. The reflected light from the DARKENED studio was picked up by four photo-electric cells of the photo-multiplier type".

The alternative 'intermediate film' process had a special camera using 17.5 mm film (half of 35 mm) which after being exposed, was quickly developed, washed, fixed, and washed again (all in less than two minutes). Still wet it was fed to an underwater gate and scanned by beam of light from a 60 ampere arc. The disc was driven by a 1/2 horsepower 3-phase motor with the disc enclosed in a vacuum and running at 6,000 rpm and containing 60 holes arranged on the circumference of the disc, the light from the disc being sent to a photo-multiplier amplifier. Sound was recorded on the film so that it could be kept 'in sync' with the picture. All this for a 240 line picture sequential at 25 frames/sec.

By this time J L Baird had swallowed his pride and decided his former remark that "Television would not be very satisfactory if it had to depend on the CRT rather than mechanical means" had been rather hasty and was thankfully using a CRT receiver after deciding that a 900 mm disc revolving at 6,000 rpm and delivering (initially) a picture of some 125 X 90 mm would not really suit an average living room.

Mind you, looking at the quality of some of the programmes radiated for our 'entertainment and the advertisers benefit', I personally think it is rather appropriate to talk of "the Logies" since the majority of them are about the same quality as the Baird system's picture and potential. 73 de Reg vk3caz

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BALLARAT AMATEUR RADIO GROUP MEMBERS LIST

Call	Surname	First Name	OM/YL/XYL	Home Phone	Address1	Address 2	E-Mail
VK3BVI	ALLAN	CLEM	PATRICIA	5348 7709	560 PORCUPINE RIDGE	DAYLESFORD VIC 3461	
VK3KCA	APPLEBY	CEDRIC			16 GREEN ST	CARISBROOK VIC 3464	
VK3NTA	ATTWOOD	TREVOR		5332 2378	31 PALING ST	BALLARAT VIC 3350	
VK3NIZ	BAYLEY	TED		5332 3340	51 OTWAY ST STH	BALLARAT VIC 3350	
VK3 VCV & SWL	BILSTON	KEN	GERALDINE	5335 7441	P.O. BOX 237	SEBASTOPOL VIC 3356	
SWL	BROWN	BOB	VIRGINIA	5345 8129	P.O. BOX 271	CRESWICK VIC 3363	B.B.F.S.@easymail.com.au
VK3CJB	BROWN	JOHN	RUTH	5339 1014	23 MONGOMERY ST	WENDOUREE VIC 3355	
VK3CAZ & SWL	CARTER	REG	SHELAGH	5341 7585	RMB N 330	BALLARAT VIC 3352	
VK3IDC	CHENNELL	IAN		5622 3220	190 ALBERT RD	WARRAGUL VIC 3820	
VK3BCQ	COLLIER	IAN			23 CEDAR AVE	ALFREDTON VIC 3350	craig@melbpc.org.au
VK3CMC	COOK	CRAIG					
VK3 FGC & SWL	CORNELL	GORDON	HELEN	5339 2427	304 WENDOUREE PDE	BALLARAT VIC 3355	
VK3LDC & VK3FMC	CURNOW	DICK	MARY	5330 1927	12 HEATHER AVE	MT CLEAR VIC 3350	
VK3LBA 7 SWL	D'ANGRI	NORM	VALDA	5334 1613	29 LAWRENCE ST	ALFREDTON VIC 3350	
VK3KQQ & SWL	DAVIDSON	NEILL	GWEN	5346 1053	LOT 13 LEIGH CRT	DEREEL VIC 3352	
SWL	DICK	STEPHEN	MARY	5331 5526	1107 HUMFFRAY ST	BALLARAT VIC 3350	
VK3KDP & VK3FJW	DIPROSE	PETER	MARION	5339 9928	7 WINIFRED ST	MITCHELL PARK VIC 3355	diprose@giant.net.au
SWL	DROSSOS	CHRIS		5332 3240	4 WINTER ST	BALLARAT VIC 3350	
VK3NAY	EZARD	BRIAN			49 WELLMAN ST	BOXHILL VIC 3128	
VK3AAI & SWL	FELSTEAD	MURRAY	KAREN	5341 2234	P.O. BOX 117	WENDOUREE VIC 3355	
VK3AAP & SWL	FOLEY	BUD	PAT	5332 4513	1115 LYDIARD ST NTH	BALLARAT VIC 3350	
VK3DMK & SWL	GEORGE	TOM	ELAINE	5339 9737	33 WATTLE AVE	WENDOUREE VIC 3355	theatom@start.com.au
VK3AIQ	GLENN	JAMES		5352 5990	RMB B131 WESTERN HWY	CARDIGAN VIC 3352	
VK3HRZ & VK3CIS	GRAINGER	KATHY	IAN		P.O. BOX 2172	MELTON STH VIC 3338	
VK3YZR	HANNAN	PETER			149 GRANO ST	ARARAT VIC 3377	
VK3CFH & SWL	HAZLEDINE	JOHN	MONICA	5339 1971	7 COLPIN ST	BALLARAT VIC 3350	
VK3KGL	HEKKMA	HARRY	THERESE		29 CROMWELL ST	SEBASTOPOL VIC 3356	hekkema@giant.net.au
VK3PH & SWL	HEWITT	BILL	OLIVE		RSD N637	BALLARAT VIC 3352	
VK3WN & SWL	HUGHES	KEVIN	PEARL	5335 5011	14 OPHIR ST	SEBASTOPOL VIC 3356	
VK3ANH & SWL	HUMPHREYS	JIM	MARGARET	5332 1613	2 VINE ST	BALLARAT VIC 3350	
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VK3HWK & VK3 XDQ	KEALL	WENDY	DARYL	5476 2689	P.O. BOX 151	MALDON VIC 3463	
VK3DS & SWL	LANCE	GEORGE	JOAN	5332 3226	114 BRITTAIN ST	BALLARAT VIC 3345	
SWL	LLOYD	IAN			117 DOODTS RD	BALLARAT VIC 3350	
VK4LPM & SWL	MACKAY	RON	LILLIAN	5368 9477	LOT 4 STANLEY ST	GODON VIC 3345	
VK3VSW	MAXWELL	CHRIS			6 HOSES LANE	GROVEDALE VIC 3216	
VK3YNB	MC CONNELL	DAVID			P.O. BOX 1283 MAIL CENTRE	BALLARAT VIC 3350	
VK3AMC	MC CUNNIE	DAVID		5331 2695	1536 STURT ST	BALLARAT VIC 3350	
VK3AXH & SWL	MC DONALD	IAN	NOLA		201 EDDY AVE	MT HELEN VIC 3350	
VK3YFM	MESSEMAKER	FRED			RMB 500 MARSHALL'S RD	BALLAN VIC 3464	
VK3YJM	MIKKELSON	JEFF		5464 2483	RMB 250	CARISBROOK VIC 3464	
VK3LU & SWL	MULLER	JEFF	BERYL	5332 8314	23 LOCH AVE	BALLARAT VIC 3350	
VK3PAP	PIGDON	JEFF		5332 7041	5 GEORGE ST	BALLARAT VIC 3350	vik3pap@netconnect.com.au
VK3XDQ & VK3HWK	QUIRK	DARRYL	WENDY	5476 2689	P.O. BOX 78	NEWSTEAD VIC 3462	
VK3VBA	RAPER	DOUG	VAL	5332 3565	210 MACARTHUR ST	BALLARAT VIC 3350	
VK3AFR & SWL	RODE	FRED	JUTTA	5345 3633	60 BUTE CL	CLUNES VIC 3370	
	SEDDON	PHIL	CHRIS	5333 4828	208 WALKER ST	BALLARAT VIC 3350	
VK3FAQ	SELLERS	GEOFF			29 LOGAN ST	MARYBOROUGH VIC 3465	
VK3ADB	SMITH	GEOFF		5333 2112	BOX 1249 MAIL CENTRE	BALLARAT VIC 3350	
SWL	SMITH	BARRY			15 FOLEY CR	BALLARAT VIC 3350	
VK3JEM	SNIBSON	LES		5334 7815	320 NEILL ST	BALLARAT VIC 3350	
VK3CIS & VK3HRZ	STANLEY	IAN	KATHY		RMB 348	BEAUFORT VIC 3373	
VK3KQB	STARES	BRIAN			C/O POST OFFICE	KOONDROOK VIC 3580	
VK3 DCS & SWL	STEWART	CHARLIE	SHIRLEY	5331 7425	314 RAGLAN ST STH	BALLARAT VIC 3350	
VK3BNC & SWL	TERRIL	BOB	BETTY	5339 5317	7 LOCKSLEY ST	WENDOUREE VIC 3355	terrill@giant.net.au
VK3DET	TURNER	ERNIE		53420383	RMB R 412 MELALEUCA RD	ENFIELD VIC 3352	ernie@giant.bnc.com.au
VK3CHP	VENEMA	ARRON			46 QUEEN ST	SEBASTOPOL VIC 3356	
VK3HEG	WALSH	STEPHEN			52 VICTORIA ST	BALLARAT VIC 3350	
VK4ZHH & SWL	WATKINS	RON	ANNETTE		11 ELDERSLIE ST	ANNANDALE QLD 4814	
VK3SE	WIDGERY	STAN		5332 2340	8 YORKE ST	BALLARAT VIC 3350	
VK3AUR	WINBORNE	MICHAEL	HELEN	9449 3432	12 MILLIGAN PDE	SYDENHAM VIC 3037	
VK3CFB	WRIGHT	JIM		5332 7563	311 RICHARDS ST	BALLARAT VIC 3350	
VK3ABI & SWL	YORKE	GORDON	LORIS	5289 1812	4 FERNLEIGH TCE	LORNE VIC 3232	

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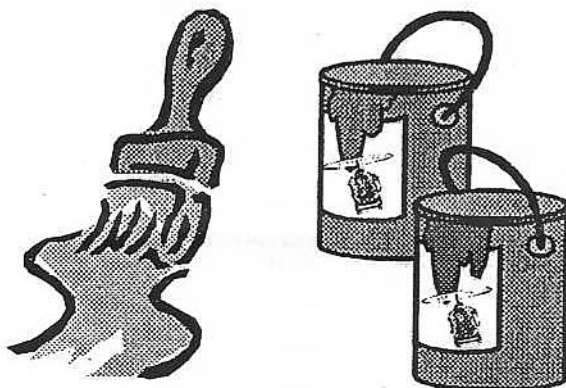
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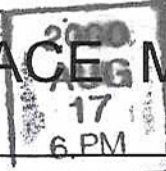
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